SCHOOL DROPOUT IN BOTSWANA

Gender Differences at Secondary Level

Wendy Duncan

Institute of International Education
University of Stockholm

February 1988

ISSN 0348 8381

ACKNOWLEDGEMENTS

This study would not have been possible without the extensive help given by the principals, staff and pupils of Francistown Secondary School, Gaborone Secondary School, Kgari Sechele Secondary School, Lobatse Secondary School, Madiba Secondary School, Matar Spei College, Maun Secondary School, Moeng College, Naledi Secondary School, St. Joseph's College, Seepapistso Secondary School, Selibi-Phikwe Secondary School, Shashe River Secondary School and Swaneng Hill Secondary School in Botswana. The principals of all of these schools allowed me access to school records, and several also gave up many hours of their valuable time to search through the records themselves in order to identify those students who had dropped out and the reasons why they had done so. Their help was very much appreciated and is here gratefully acknowledged.

Thanks are also due to the 1983 Form 3 and Form 5 classes and the 1985 Form 5 classes of the above-mentioned schools, who supplied most of the explanations for why their former classmates had interrupted or discontinued their education.

National [illegible] of Education
No. F17584
18.7.89

Descriptors: secondary education, Botswana, dropout, wastage, girls, gender differences, pregnancy, family life education, achievement.

SUMMARY

This report presents the results of a study which investigated school dropout among girls and boys in secondary schools in Botswana. The study arose out of the concern expressed by women's groups in Botswana over what appeared to be a high rate of schoolgirl pregnancy, and the effects this seemed to be having upon girls' school careers.

The statistics then available could not adequately answer the questions of whether school dropout was a more serious problem among girls than boys, or to what extent pregnancy accounted for dropout among girls. For these reasons, the present study was conducted.

The main aims of the study were to examine the incidence of dropout among girls and boys during junior and senior secondary school; to identify the major reasons for school dropout; and to examine some of the implications of dropout. The major focus of the study was upon gender differences in dropout behaviour.

Two alternative methods were used to examine the rate and causes of dropout. The first involved the use of national enrolment and examination statistics, while the second involved the tracing of individual students through school records. The second method was necessary in order to identify the reasons for dropout. Both the incidence and causes of dropout were investigated in two national cohorts.

The study found that there were significant differences in the extent of dropout between government and community schools, and between girls and boys. At the junior level, overall dropout rates in government schools were found to be around 12 per cent, and at least 40 per cent in community schools. The dropout rate at the senior level was around 7 per cent.

There were marked gender differences in the incidence of dropout at all levels. In government schools, the dropout rates for girls were more than double those for boys at the junior level, and four times higher at the senior level. In community schools, 45 per cent of girls dropped out of the junior cycle compared with 30 per cent of the boys.

The primary cause of school dropout among girls was pregnancy, accounting for more than 75 per cent of all female dropout. The two main reasons given to account for dropout among boys were the inability to pay school fees and a lack of interest in school. The results reveal an urgent need to take issue with the problem of schoolgirl pregnancy, not only to improve the internal efficiency of Botswana's secondary schools, but also to halt the waste of human potential and the personal suffering which teenage pregnancy frequently entails.

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION 1

1.1 The Aims of the Study 2

1.2 What is a Dropout? 2

CHAPTER 2 THE INCIDENCE OF DROPOUT IN BOTSWANA: PREVIOUS ESTIMATES 6

CHAPTER 3 THE INCIDENCE OF DROPOUT IN TWO NATIONAL COHORTS 15

3.1 Dropout Rates Calculated From the National Enrolment Statistics and Completion Rates 16

3.2 Dropout Rates Calculated From the Tracer Study 23

CHAPTER 4 THE CAUSES OF DROPOUT 31

4.1 Causes of Dropout During the Junior Cycle 31

4.2 Causes of Dropout During the Senior Cycle 34

CHAPTER 5 THE IMPLICATIONS OF THE FINDINGS 38

CHAPTER 6 DROPOUT AMONG GIRLS: A FINAL NOTE 42

REFERENCES 47

LIST OF TABLES

1. Dropout Rates Among Girls at the Junior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics) 7

2. Dropout Rates Among Boys at the Junior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics) 8

3. Dropout Rates Among Girls in Private and Community Junior Secondary Schools, 1976-1985 (From the National Enrolment Statistics) 10

4. Dropout Rates Among Boys in Private and Community Junior Secondary Schools, 1976-1985 (From the National Enrolment Statistics) 11

5. Dropout Rates Among Girls at the Senior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics) 13

6. Dropout Rates Among Boys at the Senior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics) 13

7. Dropout Rates for Two National Cohorts (From the National Enrolment Statistics and Completion Rates) 16

8. Total Dropout and Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Government Schools (From the National Enrolment Statistics and Completion Rates) 18

9. Total Dropout and Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Community Schools (From the National Enrolment Statistics and Completion Rates) 20

10. Total Dropout and Dropout Rates at the Senior Secondary Level for Cohorts 1 and 2, Government Schools (From the National Enrolment Statistics and Completion Rates) 22

11. Dropout Rates for Two National Cohorts (From the Tracer Study) 24

12. Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Government Schools (From the Tracer Study) 25

13. Dropout Rates at the Senior Secondary Level for Cohorts 1 and 2 (From the Tracer Study) 29

14. Causes of Dropout Among Girls in Cohorts 1 and 2 in the Junior Secondary School 32

15. Causes of Dropout Among Boys in Cohorts 1 and 2 in the Junior Secondary School 33

16. Causes of Dropout Among Girls in Cohorts 1 and 2 in the Senior Secondary School 35

17. Causes of Dropout Among Boys in Cohorts 1 and 2 in the Senior Secondary School 36

18. The Progression of Cohorts 1 and 2 Through Government Secondary Schools, Expressed as a Percentage of the Cohort Remaining 43

19. Girls and Boys Selected for Admission into Senior Secondary School, 1984 45

20. Junior Certificate Examination Results by Category of Pass, 1983 46

LIST OF FIGURES

1. Alternative Educational Paths Through Secondary School 3

2. Flow Chart Illustrating the Evolution of Cohorts 1 and 2 at the Junior Secondary Level 17

3. Flow Chart Illustrating the Evolution of Cohorts 1 and 2 at the Senior Secondary Level 21

4. Dropout in the Junior Cycle for Girls and Boys in Government Schools 27

5. The Progress of Female and Male Cohorts Through Government Secondary Schools 44

CHAPTER 1

INTRODUCTION

In recent years, much concern has been expressed about the extent of teenage pregnancy in Botswana. A symposium held in 1985 to mark International Women's Day brought attention to the social and economic implications of teenage pregnancies, especially for girls still attending school. Several speakers claimed that schoolgirl pregnancy is retarding the educational advancement of women, causing a substantial number of girls to drop out of secondary school every year.

As yet, however, no adequate data has been available to substantiate these claims. Is school dropout a more serious problem among girls than boys? If so, what are the reasons? Is pregnancy a major cause?

To answer these questions, the present study was conducted. Its aim was to gather more accurate and complete information about the incidence and reasons for dropout among girls and boys in secondary school. As Deblé (1980), in a major review of international studies concerning school wastage among girls points out, most emphasis in policies regarding the education of girls has been given to access:

> Although wastage is always referred to in official statements on education in general, it becomes a secondary issue where girls are concerned. Everything takes place as if the important thing were access to education and as if problems related to the educational process should necessarily solve themselves (Deblé, 1980:91).

Consequently, little research has been conducted on the school careers of girls. There are as yet 'few comprehensive and thorough studies on the progression of female enrolments', and there is a severe paucity of knowledge concerning the conditions which influence this progression (Deblé, op. cit:54). This is particularly true of the secondary level, where even basic promotion, repetition and dropout rates for girls are rarely available.

To date, the major source of information concerning the extent of dropout in secondary schools in Botswana has been the official enrolment statistics. However, these statistics underestimate the rate of dropout, and also give no information at all regarding the causes of dropout. This study attempts to rectify the situation by examining the incidence and causes of dropout using alternative data sources. In addition, it examines and attempts to elucidate the major differences in dropout behaviour between girls and boys.

1.1 The Aims of the Study

The study had three main aims:

1. To examine the incidence of dropout during junior and senior secondary school in order to obtain more accurate estimates of dropout rates than those currently available.

2. To identify the major reasons for dropout during the junior and senior cycles.

3. To examine some of the implications of dropout.

Accordingly, the study consisted of three stages. The first stage investigated the incidence of dropout among two specific cohorts, using the national enrolment statistics and individualised student data collected from schools. The results of these analyses, as well as the methodology, are presented in Chapter 3.

In the second stage of the study, the reasons for dropout were investigated among students in the two cohorts. The results of this stage are described in Chapter 4.

The third stage of the study consisted of an examination of the consequences and implications of dropout. This discussion forms Chapter 5. Chapter 6 gives an overview of the progress of girls and boys through the entire secondary cycle, taking into acount both dropout and ´pushout´ rates. Throughout the report, the major focus is upon gender differences in relation to dropout behaviour.

Before proceeding further, however, some conceptual clarification of the term ´dropout´ is required.

1.2 What is a Dropout?

There are many different ways of defining and measuring dropout. A dropout is generally defined as "someone who has not graduated from, or is not currently enrolled in, a full-time, state-approved education program" (Rumberger, 1987:105). This means that those people who subsequently obtain qualifications equivalent to secondary school diplomas are nevertheless considered to be dropouts, along with those still enrolled in school after the standard completion time.

Narrower definitions of dropout encompass only those who never complete their secondary education or obtain equivalent qualifications. This definition takes account of the fact that some dropouts do eventually return to school and graduate, or obtain equivalent credentials through alternative avenues.

As Pallas (1987) points out, dropouts can be classsified as either 'stayouts' or 'returnees'. Stayouts are those dropouts who never return to the educational system, while returnees are dropouts who return to the educational system at least once. The 'educational system' here refers not only to the same school as was previously attended but also other schools or alternative delivery systems. Some returnees come and go again without completing their studies ('drop-ins'), while others return and eventually earn a certificate or its equivalent (returnee-completers). These different paths through secondary school are illustrated.in Figure 1.

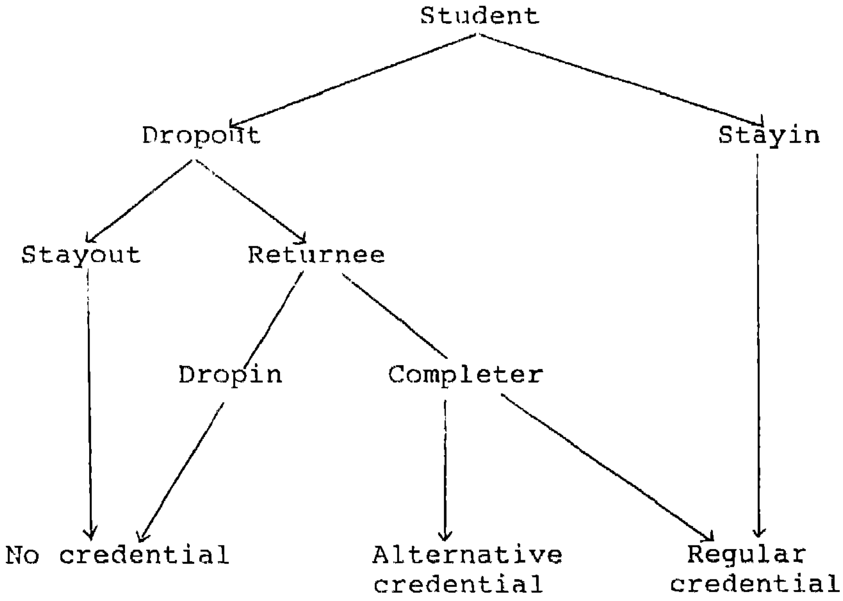


Figure 1. **Alternative Educational Paths Through Secondary School** (from Pallas, 1987)

The methods used to measure dropout are tied to the definitions used. In developed countries, it is common to calculate high school graduation or completion rates from the number of high school graduates in a given age or grade cohort at a specific point in time (Pallas, 1987). In this case, returnee-completers are included with the stayins. Those stayins who have repeated or make slower than normal progress for some other reason are implicitly considered as dropouts, since they do not graduate at the same time as the rest of their cohort.

In developing countries, where only a small proportion of the eligible population may be attending secondary school, such a measure cannot be used to estimate dropout. Instead, it is necessary to make a more restrictive analysis, based largely upon high school enrolment statistics. Dropout rates can be calculated from the number of students in a given cohort who fail to complete their courses within the allotted time. In theory, it should be possible to complement these figures with those for returnee-completers: those who either returned to the same school or school system, or who managed to graduate through an alternative route. In practice, however, such an exercise would be costly and time-consuming.

The definition of dropout chosen for the present study refers to all students from a given cohort who fail to complete a course of study within the usual time. Although it is apparent that some of these 'dropouts' do eventually return either to school, to night school, or take up a correspondence course, it is not possible to relate these figures to the enrolment data. Estimates of the number of returnee-completers are unfortunately not available for Botswana. However, the issue has special relevance in relation to girls, and will be discussed later in the paper.

This report deals with dropout at the secondary level in Botswana. The Botswana secondary school is divided into two cycles, the junior cycle and the senior cycle, which are regarded as two separate courses of study for the purposes of this report. Hence, a 'dropout' is defined as a student who begins either the junior or senior cycle, but leaves before completing the full course. It does not include all those students who leave the education system between junior and senior secondary school because they were not successful in the selection process for the senior level.

The incidence and causes of dropout will be considered here at two levels: at the junior secondary level and at the senior secondary level. Two types of schools exist at the junior level, government and community schools, while only government schools offer senior level courses. The incidence of dropout will be considered in both types of schools, but the information regarding the causes of dropout relates only to government schools. As mentioned previously, gender differences in relation to the incidence and causes of dropout are the main focus of the report.

A final comment on the term 'dropout'. The term carries pejorative connotations, and has been used here only for want of a more appropriate one. It is not intended to imply that all students who drop out of school do so of their own volition. In the present study, many of the students classified as 'dropouts' were actually expelled from school. This is especially significant for girls, as pregnancy is followed by automatic expulsion. Given the choice, it is probable that many of the girls expelled for being pregnant would have liked to continue their schooling. The term 'dropout' does not appear applicable in this case. Or is it? Perhaps pregnancy itself should in some cases be seen as a manifestation of other, underlying problems to which the student may be subject.

Rumberger (1987) comments that no-one really knows what causes students to drop out of school. Dropouts themselves have been found to cite school-related, economic and personal reasons for leaving school. However, these reasons do not reveal the underlying causal factors that lead to dropout: "Many reasons, such as getting a job or getting pregnant, should probably be considered as symptoms rather than the causes of dropout" (Rumberger, op. cit:109). He suggests that dropping out would itself better be viewed as a process of disengagement from school, for either academic or social reasons, that culminates in the final act of leaving (whether 'voluntarily' or by expulsion). This is the general perspective taken in this report. Whatever the individual reasons given for dropout, the causes of dropout are viewed ultimately as outcomes of socio-cultural and school processes.

CHAPTER 2

THE INCIDENCE OF DROPOUT IN BOTSWANA: PREVIOUS ESTIMATES

To date, most estimates of dropout rates in Botswana have been based solely upon the national enrolment statistics. These are collected annually from schools, and have the advantage that they allow comparisons of enrolments over years and between different types of schools. However, they suffer from some serious shortcomings, the most significant of which in the present context is that they do not allow the calculation of completion rates. That is, no information is given concerning the number of students who actually complete either the junior or senior cycle. Hence, these statistics lead to significant underestimates of the extent of dropout at the secondary level. Despite these limitations, however, these statististics form the basis for all current estimates of dropout and retention rates. As these estimates are widely quoted without critical comment (e.g. see Botswana Education and Human Resources Sector Assessment, 1984), we shall consider them first before proceeding to the more accurate measures obtained from the present study. These are presented in the following chapter.

Dropout rates for the junior and senior cycles as calculated from the national enrolment statistics are presented for girls and boys in Tables 1-4. The disadvantage of the national statistics is that they report only first term enrolments. Hence, the enrolments reported for each form are the enrolments at the beginning of each year. This leads to a significant underestimate of dropout because there is no way of knowing how many students leave during the final year of the junior and senior cycles. Furthermore, there is no information concerning rates of repetition.

Dropout During the Junior Cycle

Tables 1 to 4 illustrate rates of enrolment and the incidence of dropout for girls and boys during the junior cycle. Tables 1 and 2 refer to givernment schools, and Tables 3 and 4 to community schools. At the junior secondary level in Botswana there are two different types of schools: those run by the government, and those run by the community with government assistance. The community schools have constituted a second-tier to the government system, catering to those students not accepted for admission into a government secondary school. They have traditionally

Table 1: Dropout Rates Among Girls at the Junior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 1	905	859	1259	1476	1591	1565	1860	2034	2179	2213	2079	2480	3260	2851
Form 2	773	863	845	1238	1432	1531	1556	1805	2001	2118	2100	2024	2449	3207
Form 3	566	723	791	785	1141	1322	1424	1486	1663	1833	1934	1928	1882	2309
Form 1-2														
DO (N)	-	42	14	21	44	60	9	55	33	61	113	55	31	53
DO (%)	-	4.6	1.6	1.7	3.0	3.8	0.6	3.0	1.6	2.8	5.1	2.7	1.3	1.6
Form 2-3														
DO (N)	-	50	72	60	97	110	107	70	142	168	184	172	142	141
DO (%)	-	6.5	8.3	7.1	7.8	7.7	7.0	4.5	7.9	8.4	8.7	8.2	7.0	5.8
Total														
DO (N)	-	-	114	74	118	154	167	79	197	201	245	285	197	172
DO (%)	-	-	12.6	8.6	9.4	10.4	10.5	5.1	10.6	9.9	11.2	12.9	9.5	6.9

Sources: Education Statistics, 1976-1985

Table 2: Dropout Rates Among Boys at the Junior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 1	949	967	1103	1336	1270	1337	1485	1619	1750	1848	1868	2047	2861	2565
Form 2	789	913	947	1096	1314	1269	1335	1454	1612	1723	1751	1834	2167	2889
Form 3	664	771	859	909	1065	1244	1226	1297	1409	1560	1666	1704	1801	2080
Form 1-2														
DO (N)	-	36	20	7	22	1	2	31	7	27	97	34	-120	-28
DO (%)	-	3.8	2.1	0.6	1.6	0.1	0.2	2.1	0.4	1.5	5.3	1.8	?	?
Form 2-3														
DO (N)	-	18	54	38	31	70	43	38	45	52	57	47	33	87
DO (%)	-	2.3	5.9	4.0	2.8	5.3	3.4	2.9	3.1	3.2	3.3	2.7	1.6	3.0
Total														
DO (N)	-	-	90	58	38	92	44	40	76	59	84	144	67	-33
DO (%)	-	-	9.5	6.0	3.5	6.9	3.5	3.0	5.1	3.6	4.8	7.8	3.6	?

Sources: Education Statistics, 1976-1985

been characterised by poorer resources, fewer trained teachers and lower academic standards than the government schools, although efforts are now being made to redress the balance.

As the tables show, there has been a steady increase in enrolment in both government and community schools since the late seventies. The rate of increase has been far greater in community schools than in government schools: between 1978 and 1985, total enrolment in government schools increased by 45 per cent, while that in community schools increased by 60 per cent. This reflects the high demand for schooling among groups unable to gain access to government schools. Form 1 enrolment dropped in both types of schools in 1985 because the high levels reached in 1984 as a result of a sudden, major expansion could not be completely sustained.

That a large proportion of the students in community schools are girls is also clear from Table 2: girls have made up 65-70 per cent of all Form 1 groups in community schools since the late seventies. In government schools, on the other hand, the proportion of girls entering Form 1 has remained constant at around 55 per cent. Why the demand for schooling among girls in Botswana has been considerably higher than among boys has still to be satisfactorily explained, although various explanations relating to differential opportunity costs for girls and boys, alternative employment opportunities for boys and the effects of mine labour migration to South Africa have been put forward (e.g. see Allison, 1978; Chernichovsky and Smith, 1979; Case, 1982).

Although there have been some fluctuations in the dropout rates in both school systems, probably due to inconsistencies in data collection and reporting (e.g. 1979), it is evident from Tables 1 and 2 that the dropout rate for girls in government schools has been consistently higher than that for boys. The dropout rate for girls since 1976 (excluding 1979) ranges from 4 per cent in 1985 to 13 per cent in 1983, while that for boys ranges from 3 to 8 per cent. The dropout rates for boys in the 1983-85 cohort appear to be very low, and are probably an artefact of the 1984 expansion in Form 1 enrolments. Although no information concerning the rate of repetition is available by sex for the years under consideration, it is likely that these rates were generally low.

The data for community schools are probably less accurate than those for government schools, especially for 1982, but the trends revealed in Tables 3 and 4 are nevertheless fairly consistent. For both girls and boys, the dropout rates are much higher than in government schools. Repetition rates are also generally higher, but unfortunately this information is not available. The dropout rates for girls (see Table 3) range from 33 per cent to 42 per cent, yielding an extremely high average of 38 per cent. Greater variation is evident among the boys, where rates range from 22 per cent to 47 per cent. As can be seen from Table 4, it appears that, unlike the girls, the boys' rate of dropout is decreasing. However, the inaccuracies inherent in the collection

Table 3: Dropout Rates Among Girls in Private and Community Junior Secondary Schools, 1976-1985 (From the National Enrolment Statistics)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 1	1283	1380	1082	1150	1458	1617	1743	1809	2904	2855
Form 2	798	1088	1213	931	956	1360	1393	1365	1580	2705
Form 3	552	656	820	800	730	661	889	1050	1101	1457
Form 1-2										
DO (N)	-	195	167	151	194	98	224	378	229	199
DO (%)	-	15.2	12.1	14.0	16.9	6.7	13.8	21.7	12.7	6.9
Form 2-3										
DO (N)	-	142	268	413	201	295	471	343	246	123
DO (%)	-	17.8	24.6	34.1	21.6	30.9	34.6	24.6	19.3	19.3
Total										
DO (N)	-	-	463	580	352	489	569	567	642	352
DO (%)	-	-	36.1	42.0	32.5	42.5	39.0	35.1	36.8	19.5

Sources: Education Statistics, 1976-1985.

Table 4: Dropout Rates Among Boys in Private and Community Junior Secondary Schools, 1972-1985 (From the National Enrolment Statistics)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 1	780	735	514	583	630	873	977	1017	1810	2306
Form 2	440	625	569	418	526	622	776	864	895	1654
Form 3	376	388	491	393	329	404	569	682	790	927
Form 1-2										
DO (N)	-	155	166	96	57	8	97	113	122	156
DO (%)	-	19.9	22.6	18.7	9.8	1.3	11.1	11.6	12.0	3.6
Form 2-3										
DO (N)	-	52	134	176	89	122	53	94	74	-32
DO (%)	-	11.8	21.4	30.9	21.3	23.2	8.5	12.1	8.6	[illegible]
Total										
DO (N)	-	-	289	342	185	179	61	191	187	90
DO (%)	-	-	37.1	46.5	36.0	30.7	9.7	21.9	19.1	8.8

Sources: Education Statistics, 1976-1985.

of national statistics as well as the lack of repetition rates make any judgements concerning trends in dropout behaviour in community schools difficult to substantiate. The average dropout rate for boys during the junior cycle was 34 per cent: slightly less than that for girls.

High as these rates are, they considerably underestimate the true incidence of dropout from Botswana's secondary schools. A final set of figures measuring enrolment at the end of the junior cycle is also necessary in order to obtain a truer measure of the dropout occurring during the junior cycle.

Dropout During the Senior Cycle

Enrolment figures for girls and boys in government schools at the senior secondary level are given in Tables 5 and 6 for 1972-1984. In contrast to the junior secondary schools, boys at this level outnumber girls. Between 1972 and 1984, girls constituted around 40 per cent of all senior level entrants.

As was the case for the junior cycle, it is not possible to obtain a true indication of the extent of dropout from the data because of the lack of a final Form 5 enrolment figure. From the data which are available, however, it is apparent that the dropout rates for girls in the cohorts entering Form 4 between 1972 and 1985 were considerably higher than those for boys. Dropout rates for the latter ranged from 0 to 4 per cent, with an average rate of about 2 per cent. For girls, the range was from 3 per cent to 9 per cent, with an average of around 7 per cent. Hence, of the 5581 girls who began the senior cycle during the years in question, 406 had dropped out by the beginning of Form 5. Only 143 of the 7926 boys had done so.

As indicated earlier, the number of students dropping out during Form 5 cannot be ascertained from these figures. However, the data which are available indicate that the dropout rates for both sexes are lower at the senior than the junior level. The average dropout rate for girls during junior secondary school was 11 per cent, and 7 per cent during the senior school. The average dropout rate for boys during the junior school was 5 per cent, compared with only 2 per cent at the senior level.

To summarise: the national enrolment statistics presented in Tables 1 to 4 give some idea of the general trends regarding dropout among girls and boys during the junior and senior levels of secondary schooling, although the extent of dropout is greatly underestimated. Dropout rates were higher during the junior cycle than the senior cycle; were higher in community schools than government schools; and were higher among girls than boys.

However, as was pointed out, these data suffer some major limit-

Table 5: Dropout Rates Among Girls at the Senior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 4	225	228	294	336	325	449	481	529	672	684	690	668	935	913
Form 5	150	205	212	278	325	306	416	453	489	611	631	630	619	879
DO (N)	-	20	16	16	11	19	33	28	40	61	53	60	49	56
DO (%)	-	8.9	7.0	5.4	3.3	5.9	7.4	5.8	7.6	9.1	7.8	8.7	7.3	6.0

Source: Education Statistics, 1976-1985

Table 6: Dropout Among Boys at the Senior Secondary Level in Government Schools, 1972-1985 (From the National Enrolment Statistics)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Form 4	307	326	426	555	553	645	728	777	885	885	899	938	1222	1364
Form 5	236	297	319	428	542	551	617	721	764	873	882	874	917	1212
DO (N)	-	10	7	-2	13	2	28	7	13	12	3	25	21	10
DO Rate	-	3.3	2.2	0.0	2.3	0.4	4.3	1.0	1.9	1.4	0.3	2.8	2.2	0.8

Sources: Education Statistics, 1976-1985

ations in that they present no information regarding repetition or completion rates. This information is crucial if one is to gain an accurate indication of the incidence of dropout and the degree of internal efficiency. Hence, the dropout measures presented in both sections of the following chapter are based upon the number of students completing the junior and senior cycles, while those presented in the second section also exclude the effects of repetition.

CHAPTER 3

THE INCIDENCE OF DROPOUT IN TWO NATIONAL COHORTS

The first aim of this study was to measure the extent of dropout among girls and boys in Botswana more accurately than has been done before. To accomplish this, two alternative approaches were used to measure dropout among two different cohorts. Cohort 1 entered secondary school in 1979 and completed in 1983, while Cohort 2 entered in 1981 and completed in 1985.

The first approach involved the use of the national enrolment statistics, supplemented by additional information concerning completion rates at the junior and senior levels for Cohorts 1 and 2.

The second method relied on the collection and analysis of individualised data, so that the school careers of a representative sample of students from Cohorts 1 and 2 could be followed from the time of their entrance into Form 1 until the time of their school leaving. The tracing of individual students also allowed for the control of the effects of repetition, as repeaters could be identified and excluded from the analysis.

The use of two alternative approaches meant that each could serve as a check upon the reliability of the other. National enrolment statistics are notoriously inaccurate although, given the smallness of Botswana's school population and the well-developed data collection systems, the Botswana statistics are undoubtedly more accurate than those in many other developing countries. Unfortunately, however, they have not until recently included information concerning repetition rates for girls and boys at the secondary level. This omission renders them particularly unreliable for an analysis of dropout in community schools.

The second approach used is, of course, the most rigorous, but is also the most demanding in terms of time and resources. As the information was collected from school records, a pre-requisite for the use of the method is the availability of complete and accurate records. This condition was fulfilled only in government schools, so the method could not be applied in community schools. For these schools, we must rely on the national enrolment statistics, supplemented by completion rates.

3.1 Dropout Rates Calculated from the National Enrolment Statistics and Completion Rates

In order to calculate completion rates, information concerning the numbers of students actually completing the junior and senior cycles was collected from national registers for the examinations which take place at the end of these cycles. This information was collected for both government and community schools. The examination held at the end of the junior cycle is the Junior Certificate Examination (JC), while the Cambridge Overseas Students Examination (COSC) terminates the senior cycle. Only those students who actually sat these examinations have been included as completers. At the time when this study was conducted, the junior cycle consisted of three years, and the senior cycle two years.

Table 7. Dropout Rates for Two National Cohorts (Based on National Enrolment Statistics and Completion Rates)

		Junior Cycle		Senior
Cohort		Govt	Community	Cycle
Cohort 1	Girls	15.7	47.2	11.6
	Boys	6.7	30.2	3.8
	Total	11.7	41.5	7.2
Cohort 2	Girls	16.5	43.4	11.3
	Boys	7.5	28.2	3.6
	Total	12.4	38.5	7.0

Table 7 shows the revised estimates for the number of students who dropped out from the two cohorts during the junior cycle and during the senior cycle. As the dropout was measured over the entire junior and senior cycles, these figures are a more precise reflection of actual dropout. The dropout rates are much higher than those obtained using only the enrolment statistics, as would be expected. They are also higher than other countries in the region. For government schools, the dropout rate during the junior cycle was 12 per cent for both cohorts. In Zambia, the comparable rate is around 5 per cent. During the senior cycle, the dropout rate was 7 per cent for both cohorts. Hence, there is considerable internal inefficiency in Botswana's schools. The dropout rates in community schools are even higher, but are compounded by high rates of repetition. They will be discussed further below.

Dropout During the Junior Cycle

We shall first examine the incidence of dropout at the junior level, beginning with government schools.

Government Schools

A flow chart illustrating the evolution of the two cohorts upon which the following analysis is based is presented in Figure 2. Cohort 1 began Form 1 in 1979, which means that it completed the junior cycle in 1981. The second cohort began Form 1 in 1981 and completed Form 3 in 1983.

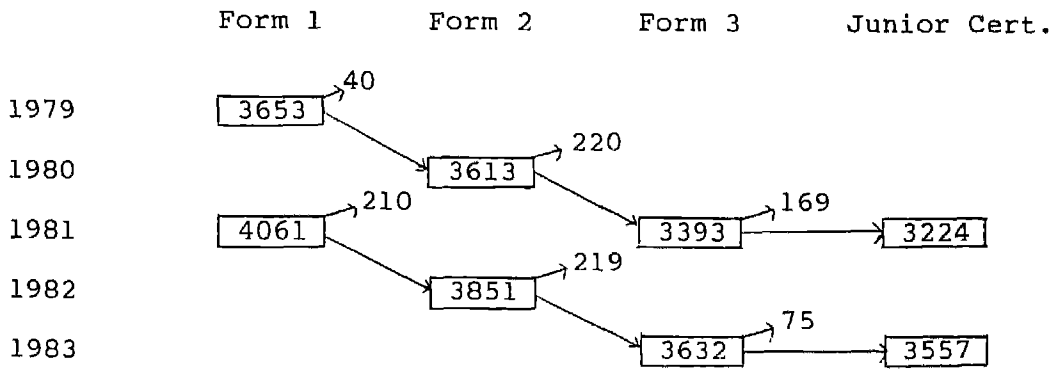


Figure 2: Flow Chart Illustrating the Evolution of Cohorts 1 and 2 at the Junior Secondary Level

In Cohort 1, 3653 students entered Form 1 in 1979, of which 40 subsequently dropped out either during or at the end of the year. As a result, only 3613 students entered Form 2, of which 220 dropped out, leaving 3393 students to enter Form 3. During Form 3 a further 169 students left which means that, of the original 3653 students, only 3224 actually sat the final Form 3 examin-

Table 8: Total Dropout and Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Government Schools (From the National Enrolment Statistics and Completion Rates)

	GIRLS		BOYS		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Form 1	2034	2213	1619	1848	3653	4061
Form 2	2001	2100	1612	1751	3613	3851
Form 3	1833	1928	1560	1704	3393	3632
JC Exam	1714	1848	1510	1709	3224	3557
DO F1 (N)	33	113	7	97	40	210
DO F2 (N)	168	172	52	47	220	219
DO F3 (N)	119	80	50	-5	169	75
Tot DO Junior Cycle (N)	320	365	109	139	429	504
DO F1 (%)	1.6	5.1	0.4	5.2	1.1	5.2
DO F2 (%)	8.4	8.2	3.2	2.7	6.1	5.7
DO F3 (%)	6.5	4.1	3.2	-	5.0	2.1
Tot DO Junior Cycle (%)	**15.7**	**16.5**	**6.7**	**7.5**	**11.7**	**12.4**

Sources: **Education Statistics**, 1979-1983; Junior Certificate Examination Results, 1981 and 1983.

ation. Students from the cohort who dropped out but later re-entered the educational system could not be included, but such cases are few in number.

The dropout reported for the 1979 Form 1 group is suspiciously low; in fact, the results reported in the next section show that at least 142 students dropped out from this cohort during 1979. This reveals the inaccuracy of national statistics, so that some of these figures must be treated with caution.

In the case of Cohort 2, the original enrolment consisted of 4061 students, of which 210 dropped out in Form 1, 219 in Form 2 and 75 in Form 3, leaving only 3557 to graduate from Form 3. Again, one of the dropout figures appears to be too low. In the sample studied, 87 students dropped out of Form 3 during 1983, indicating that the national figure should be somewhat in excess of 87. Instead, the national figure is given as 75.

The revised dropout rates for the junior cycle based upon the number of completers are shown in Table 8. As would be expected, they are much higher than those obtained using only the national enrolment statistics. Even so, it is likely that the rates should be even higher, as inaccuracies in the statistics are tending to mask some dropout. For example, the under-reporting of Form 1 enrolments in 1979 led to dropout estimates for that year which are inconsistent with other years. In addition, as indicated earlier, no information relating to repetition rates is available, so that Form 3 dropout among both cohorts is probably being under-estimated as well. There was clearly repetition among boys in the Form 3 class of Cohort 2, for example, leading to an overall gain in the number of students. So, the dropout estimate for boys of that year is zero, although it is unlikely to have been so in reality.

Although it is difficult to discern a consistent trend, generally speaking dropout among girls is highest in Form 2, and lower in Form 1 and 3. Among boys, there is no consistent trend. What is consistent, however, is the very marked difference in the dropout rates of girls and boys. Girls in both cohorts had dropout rates of around 16 percent, which is extremely high and should be a cause for immediate concern. The dropout rate for boys was about 7 per cent which, although still high, is clearly considerably less than that for girls.

Community Schools

The revised dropout rates for girls and boys in community junior secondary schools are shown in Table 9. The lack of information concerning repetition, which is very high in many of these schools, means that some years show a net gain of students rather than a net loss. Despite this, however, the dropout rates for

Table 9: Total Dropout and Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Community Schools (From the National Enrolment Statistics and Completion Rates)

	GIRLS		BOYS		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Form 1	1150	1617	583	873	1733	1456
Form 2	956	1363	529	748	1485	-
Form 3	661	1050	404	682	1065	1086
JC Exam	607	905	407	627	1014	1034
DO F1 (N)	194	254	54	125	248	379
DO F2 (N)	295	313	125	66	420	379
DO F3 (N)	54	145	- 3	55	51	200
Total DO (N)	543	702	176	246	719	958
DO F1 (%)	16.9	15.7	9.8	14.3	14.3	15.2
DO F2 (%)	30.9	23.0	23.2	8.8	28.3	18.0
DO F3 (%)	8.2	13.8	0.0	8.1	4.8	11.5
Total DO (%)	47.2	43.4	30.2	28.2	41.5	38.5

Note: Maru-a-Pula Secondary School not included.

Sources: Education Statistics, 1985; Junior Certificate Examination Results, 1981 and 1983.

these schools are alarmingly high. The dropout rates for both cohorts are around 40 per cent. As in government schools, dropout rates were highest in Form 2, and were much higher among girls than boys. Around 45 per cent of the girls in both cohorts dropped out between Form 1 and 3, while around 30 per cent of the boys did so. There is no published information available concerning the rate of repetition for these years, but I found that almost half of the pupils in many of these Form 3 classes were repeaters in 1983. In addition to 'internal' repeaters, it was common that pupils from government schools who had failed to gain entrance to senior secondary school transferred to these non-government schools in order to repeat the exam and try again for a senior place. The majority of these repeaters were girls. A small number of the female repeaters had also been casualties of the rule demanding expulsion for pregnancy. If these high rates of repetition were taken into account, the dropout rates in community schools would be seen to be even higher, especially among girls.

Dropout During the Senior Cycle

The progress of the two cohorts through Forms 4 and 5 is illustrated in Figure 3.

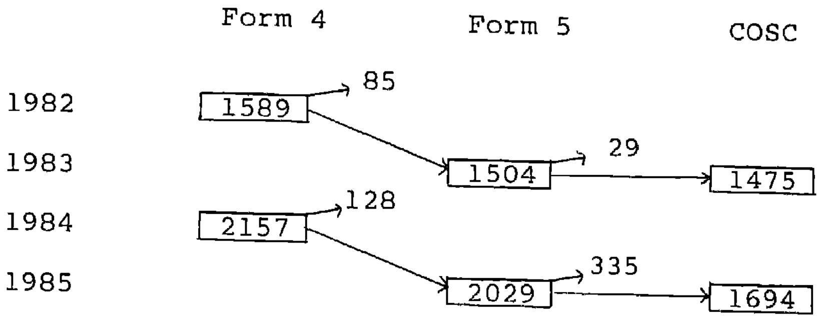


Figure 3: Flow Chart Illustrating the Evolution of Cohorts 1 and 2 at the Senior Secondary Level

Of the 1589 students from Cohort 1 who entered Form 4 in 1982, 85 had dropped out by the beginning of Form 5, with a further 29 dropping out before the end of the fifth year. In Cohort 2, 128 of the 2157 Form 4 entrants dropped out during Form 4, with a further 35 dropping out during fifth year.

The total number of dropouts and the dropout rates for the two

Table 10: Total Dropout and Dropout Rates at the Senior Secondary Level for Cohorts 1 and 2, Government Schools (From the National Enrolment Statistics and Completion Rates)

	GIRLS		BOYS		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Form 4	690	935	899	1222	1589	2157
Form 5	630	854	874	1175	1504	2029
COSC Exam	610	829	865	1178	1475	1694
DO F4 (N)	60	81	25	47	85	128
DO F5 (N)	20	25	9	-3	29	25
Tot DO Senior Cycle (N)	80	106	34	44	114	150
DO F4 (%)	8.7	8.7	2.8	3.8	5.3	5.9
DO F5 (%)	3.2	2.9	1.0	0.0	1.9	1.2
Tot DO Senior Cycle (%)	11.6	11.3	3.8	3.6	7.2	7.0

Sources: Education Statistics, 1982-1985; COSC Examination Results, 1983 and 1985.

cohorts during the senior cycle are presented in Table 10. In both cohorts dropout rates during the senior cycle were around seven per cent, which is much higher than the four per cent obtained using only the national enrolment statistics. Once again, however, there were marked differences between girls and boys. More than 11 per cent of the girls in both cohorts dropped out, compared with less than four per cent of the boys. Dropout rates were much higher during Form 4 than Form 5, particularly among the girls. Dropout rates for girls in Form 4 were almost nine per cent, compared with three per cent during Form 5. For boys, the dropout rate during Form 4 was around three per cent, and less than one per cent during Form 5. These rates reveal a surprisingly high rate of dropout, particularly among girls, even at the senior level.

3.2 Dropout Rates Calculated from the Tracer Study

As Deblé (1980) indicates, the only rigorous method for pinpointing and measuring wastage in education involves the collection of information for individual students. This method allows the careful study of school careers, but also requires considerable financial and human resources. As a result, such information is rarely available. For the present study, however, it was necessary to collect individualised information in order to carry out the major purpose of the study, which was to investigate the causes of dropout.

To this end, enrolment statistics allowing the calculation of total dropout and dropout rates were collected from school records (admission registers, attendance registers, class lists and report books) in 15 government secondary schols at the end of 1983 and the end of 1985. The information was supplemented and verified by in-depth interviews concerning the causes of dropout with the former principals, teachers and classmates of those who had left. In this way, it was possible to collect accurate and complete information about the numbers of dropouts among both girls and boys, as well as the reasons for their dropping out.

The two groups of students studied came from the same two cohorts examined in the previous section: that which began secondary school in 1979 and completed in 1983, and that which began Form 1 in 1981 and completed Form 5 in 1985. It should be noted that the data used here do not refer to complete national cohorts. Instead, a representative sample of government schools was selected for the study. This sample was rather extensive, consisting of 15 government schools. In 1983, when the first stage of the study was carried out, there were only 23 government secondary schools in Botswana.

It was originally intended that the study should also cover a sample of community schools in order to compare them with government schools. However, the difficulty of obtaining complete sets of records rendered this part of the study so time-consuming and inaccurate that it was decided not to pursue it. Data were obtained for two community schools but they have not been reported here because of the smallness of the sample.

In contrast to national enrolment statistics, which are based merely upon the number of students enrolled in a given year, the method used here involved the tracing of individual students through school records, from the time of their entrance into Form 1 until the completion of their schooling. Again, only those students who actually appeared at the final examinations have been included as completers.

Table 11: Dropout Rates for Two National Cohorts (From the Tracer Study)

Cohort		Junior Cycle	Senior Cycle
Cohort 1	Girls	18.9	12.8
	Boys	8.1	3.3
	Total	14.7	7.4
Cohort 2	Girls	16.2	12.5
	Boys	6.1	3.8
	Total	11.8	9.0

The rates of dropout obtained for the junior and senior cycles using individualised data obtained from school records are shown in Table 11. The resultant rates are slightly higher than those obtained using the national enrolment and completer statistics, probably because they take account of repetition. Nevertheless, they reveal the same trends. Dropout rates at both the junior and senior levels are very high in both cohorts, with overall dropout rates at the junior level of between 12 and 15 per cent, and at the senior level of between seven and nine per cent. The dropout rates for girls are again seen to be much higher than for boys: more than twice as high at the junior level, and more than three times as high at the senior level. During the junior cycle, 16-19 per cent of girls dropped out compared with 6-8 per cent of boys, while around 12 per cent of the girls who began the senior cycle dropped out compared with only three per cent of the boys.

Table 12: Dropout Rates at the Junior Secondary Level for Cohorts 1 and 2, Government Schools (From the Tracer Study)

	GIRLS		BOYS		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Form 1	1601	1500	1289	1254	2890	2754
Form 2	1481	1414	1240	1223	2721	2637
Form 3	1363	1302	1198	1183	2561	2485
JC Exam	1267	1230	1160	1168	2427	2398
TB F1	15	6	10	3	25	9
TB F2	7	4	3	2	10	6
TB F3	3	0	2	0	5	0
Tot TB	25	10	15	5	40	15
TA F1	4	7	5	2	7	9
TA F2	5	5	1	2	6	7
TA F3	1	3	3	0	4	3
Tot TA	10	15	9	4	19	19
M F1	1	2	0	0	1	2
M F2	0	0	0	0	0	0
M F3	1	0	0	1	1	1
Tot M	2	2	0	1	2	3
DO F1 (N)	99	71	34	26	142	101
DO F2 (N)	107	103	38	36	152	141
DO F3 (N)	81	64	30	12	111	76
Tot DO (N)	302	243	105	76	425	325
DO F1 (%)	6.2	4.7	2.6	2.1	4.9	3.7
DO F2 (%)	7.6	7.3	3.1	2.9	5.6	5.3
DO F3 (%)	7.4	5.3	2.8	1.2	5.1	3.3
Tot DO (%)	18.9	16.2	8.1	6.1	14.7	11.8

TB=transfer within Botswana TA=transfer abroad M=mortality

Dropout During the Junior Cycle

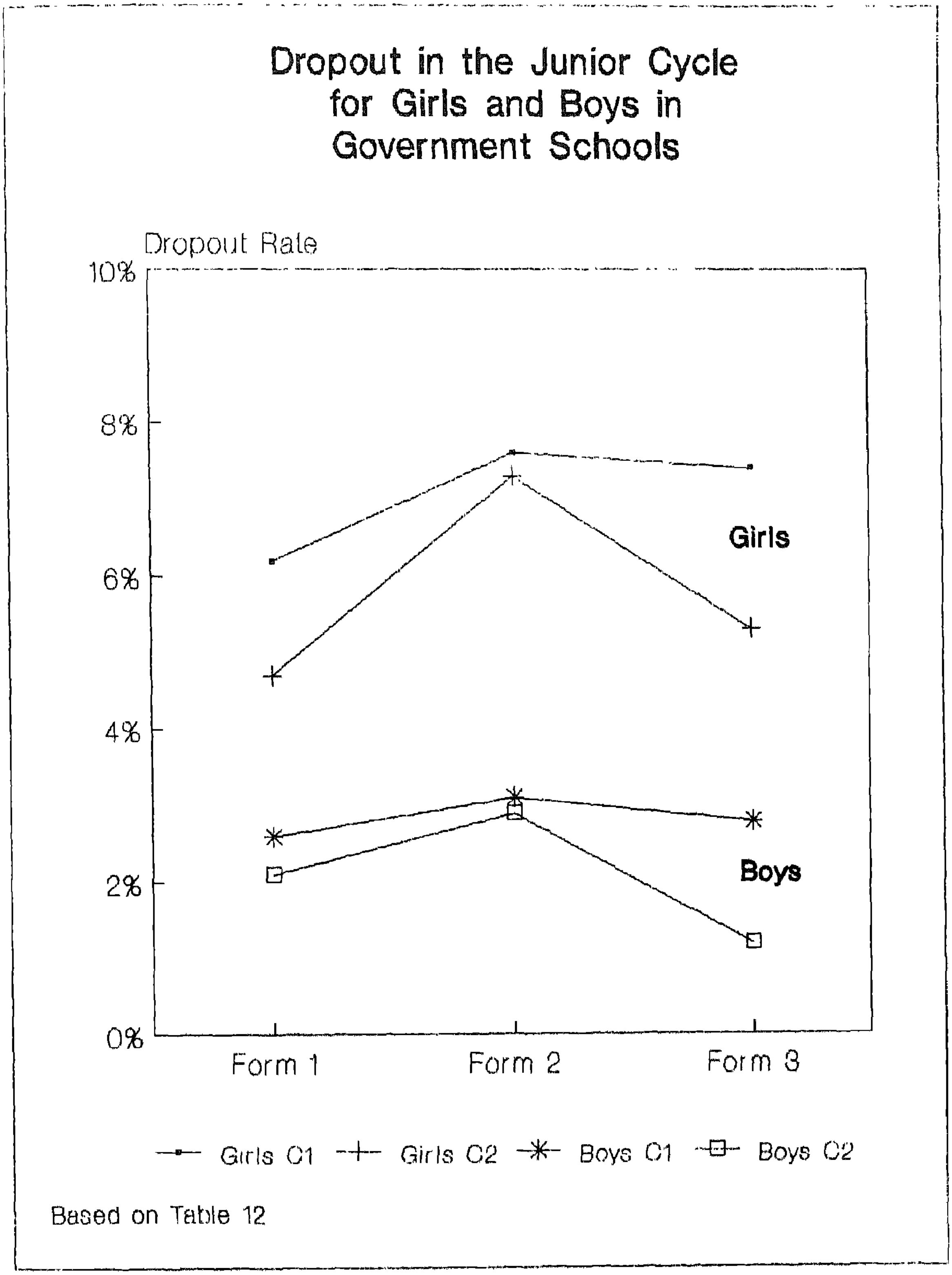
The total dropout and dropout rates obtained for the girls and boys in the two cohorts using school-based records are presented in Table 12. The total dropout from Cohort 1 was 461 and that from Cohort 2 was 356. However, these figures include students who left on transfer, either within Botswana or abroad, as well as some students who died. As it is not customary to label such students as 'dropouts' they have been reported separately in Table 12, and are not included in the total dropout rates given at the end of the table. For Cohort 1, 33 students left on transfer to other schools within Botswana, 17 left on transfer abroad, and two died. This reduces the total dropout for this cohort to 425. (It is possible that some of those who were transferred within Botswana actually re-entered other schools in the sample, but this information was not available). For Cohort 2, 15 students were transferred within Botswana, 19 left on transfer abroad, and three died. This reduces the total dropout for the 1981 cohort to 325. Hence, the dropout rate between the beginning of Form 1 and the end of Form 3 in Cohort 1 was 15 per cent, and that for Cohort 2 was 12 per cent.

The dropout rates during Form 1 were 5 per cent and 4 per cent for Cohorts 1 and 2 respectively; 6 and 5 per cent for Form 2; and 5 and 3 per cent for Form 3. Thus, dropout was highest in Form 2, and slightly less high in Form 1 and Form 3. However, these differences are small, and the rate of dropout across the three levels may be regarded as rather uniform.

When, on the other hand, we compare the extent of dropout among girls and boys, large differences become apparent. After taking into account dropout due to transfers and deaths, we are left with a total dropout for girls in the junior cycle of 302 and 243 for Cohorts 1 and 2 respectively. This compares with only 105 and 76 for the two male cohorts. The dropout rates over the junior cycle are thus almost three times higher among girls than boys in the two cohorts: 19 per cent and 16 per cent for the girls, compared with only 8 per cent and 6 per cent for the boys.

The dropout rates across Form 1, Form 2 and Form 3 remain fairly uniform for both sexes, although there is a slight peak in both cases at the Form 2 level (see Figure 4). Among girls, the average Form 1 dropout (both cohorts) was 5 per cent, 7 per cent for Form 2, and 6 per cent for Form 3. Among the boys, the average Form 1 dropout rate was 2 per cent, Form 2 was 3 per cent, and Form 3 around 2 per cent. For Cohort 1, as Figure 4 shows, dropout among both girls and boys was highest in Form 2, lower in Form 3 and lowest in Form 1. This was also true of the girls in Cohort 2. The trend among the boys in Cohort 2 was rather different, however, as dropout rates during Form 3 decreased markedly compared with Forms 1 and 2. Whether this trend has continued cannot be ascertained from this data.

FIGURE 4



Based on Table 12

The high rates of dropout in Form 2 were mentioned independently by several of the teachers interviewed during the course of the study. Not only was Form 2 the middle year in the junior cycle, but it also coincided with the onset of puberty among many students. This was considered to be particularly problematic for girls. Several teachers commented that Form 2 was the point at which many girls who had previously done well at school began to lose interest in their school work and to turn their attention to other matters. Whether the introduction of the new two-year junior cycle will have some counteractive effect upon this tendency will be interesting to see.

Dropout During the Senior Cycle

The total number of dropouts and the dropout rates during the senior cycle calculated using school-based data are presented for the girls and boys in the two cohorts in Table 13. Excluding transfers and deaths, the total dropout for Cohort 1 during Form 4 was 63 (5 per cent), and during Form 5 was 27 (2 per cent). Hence, the total dropout rate from Cohort 1 during the senior cycle was about 7 per cent. For Cohort 2, total dropout during Form 4 was 83 (5 per cent) and during Form 5 was 48 (3 per cent). The total dropout rate from Cohort 2 during the senior cycle was thus 9 per cent. These rates are only slightly higher than those derived from the national enrolment and completer statistics in Section 2.2.

As is also evident from Table 13, more students dropped out during Form 4 than Form 5: 5 per cent dropped out from the two cohorts during Form 4, compared with 3 per cent during Form 5.

The dropout rates for girls were considerably higher than those for boys at the senior level as well as at the junior level. During Form 4, 8 and 7 per cent of the girls dropped out from the two cohorts respectively compared with only 3 and 2.5 per cent of the boys. A similar trend was evident during Form 5, where more than 5 per cent of the girls dropped out from both cohorts compared with virtually none of the boys in Cohort 1, and only 1 per cent of the boys from Cohort 2. For both cohorts, the number of girls who dropped out of senior secondary school was three times the number of boys (151 cf. 58). The overall dropout rate for girls was a high 12.8 per cent for the earlier cohort and 12.5 per cent for the later one. Among boys, the dropout rates were only 3.3 and 3.8 per cent respectively.

As a result of the two analyses presented in Sections 3.1 and 3.2, we may draw the following conclusions about the incidence of dropout at the secondary level in Botswana's government schools.

Table 13: Dropout Rates at the Senior Secondary Level for Cohorts 1 and 2 (From the Tracer Study)

	GIRLS		BOYS		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Form 4	522	672	692	910	1214	1582
Form 5	478	615	669	884	1147	1499
COSC Exam	452	579	666	872	1118	1451
TB F4	0	2	0	1	0	3
TB F5	0	0	0	0	0	0
Tot TB	0	2	0	1	0	3
TA F4	2	5	2	1	4	6
TA F5	0	1	1	0	1	1
Tot TA	2	6	3	1	5	7
M F4	0	1	0	1	0	2
M F5	1	0	0	0	1	0
Tot M	1	1	0	1	1	2
DO F4 (N)	42	49	21	23	63	83
DO F5 (N)	25	35	2	12	27	48
Tot DO (N)	67	84	23	35	90	131
DO F4 (%)	8.0	7.3	3.0	2.5	5.2	5.2
DO F5 (%)	5.2	5.7	0.3	1.4	2.4	3.2
Tot DO (%)	12.8	12.5	3.3	3.8	7.4	9.0

TB=transfer within Botswana TA=transfer abroad M=mortality

1. Dropout occurs at an overall rate of around 12 per cent during the junior cycle, and at a rate of around 7 per cent during the senior cycle.

2. During the junior cycle, dropout is most acute in Form 2, particularly among girls.

3. During the senior cycle, dropout is highest in Form 4, but reduces to a negligible rate in Form 5 among boys.

4. Large gender differences in dropout rates were apparent during both the junior and senior cycles. At the junior level, the dropout rate for girls was 2.5 times higher than for boys (16-18 per cent for girls cf. 6-8 per cent for boys). At the senior level, girls dropped out four times more frequently than boys (13 per cent for girls cf. 4 per cent for boys).

The conclusions for community schools are more tentative because they are based only upon the national enrolment statistics and completion rates, and do not take account of the high rate of repetition which occurs in the final year of the junior cycle in these schools. With these reservations in mind, the following conclusions can be made in reference to community schools.

1. Dropout occurs at an overall rate of at least 40 per cent during the junior cycle.

2. Dropout rates were generally highest at the Form 2 level, especially for girls.

3. The gender differences in dropout rates were very marked. Around 45 per cent of the girls dropped out before completing the junior cycle, compared with 30 per cent of the boys.

The reasons for these high levels of dropout, as well as the disturbing gender disparities, will be examined in the following chapter.

CHAPTER 4

THE CAUSES OF DROPOUT

We have so far seen that there is a high rate of dropout among both girls and boys at the secondary level in Botswana. We have also seen that the dropout rates for girls are approximately 2.5 times higher than those for boys at the junior secondary level in government schools, and approximately four times higher at the senior level. The main question to be answered now is why. Why do so many students leave school during the course of their secondary education? And why does this affect so many more girls than boys?

To answer this question, information concerning the reasons why students had dropped out was collected case by case from teachers and pupils in the schools studied. The reasons given fell into five main groups: a) lack of interest in school, b) lack of money for school fees, c) pregnancy, in the case of girls, and seduction in the case of boys, d) illness, e) expulsion for bad behaviour and f) the desire to begin working. There were only a small number of cases where the cause of dropout was unknown.

4.1 Causes of Dropout During the Junior Cycle

The main causes of dropout at the junior level are presented for the two female cohorts in Table 14, and for the two male cohorts in Table 15.

The total number of girls who dropped out from the first cohort between the beginning of Form 1 and the end of Form 3 was 303, and 243 from the second cohort. As is clear from Table 12, by far the most important cause of dropout among the girls in both cohorts was pregnancy: 229 cases in Cohort 1 and 177 in Cohort 2. Hence, pregnancy accounted for around 75 per cent of all female dropout in both cohorts. In relation to the original Form 1 enrolment, this means that almost 15 per cent of the original female entrants left school pregnant before sitting their Junior Certificate Examination.

Other reported causes of dropout among girls were, in order of importance, failure to pay school fees, and a lack of interest in school. Lack of fees accounted for 8-9 per cent of all female dropout in the two cohorts, while lack of interest in school accounted for less than five per cent. Both of these factors

Table 14: Causes of Dropout Among Girls in Cohorts 1 and 2 in the Junior Secondary School

	FORM 1		FORM 1		FORM 2		FORM 2		FORM 3		FORM 3		TOTAL		TOTAL	
	Coh. 1		Coh. 2		Coh. 1		Coh. 2		Coh. 1		Coh. 2		Coh. 1		Coh. 2	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Int	6	(4)	3	(4)	6	(5)	6	(5)	1	(1)	6	(8)	13	(3)	15	(6)
Fees	7	(7)	5	(5)	7	(6)	20	(20)	5	(4)	3	(5)	19	(6)	28	(12)
Preg	71	(74)	56	(79)	83	(78)	67	(65)	75	(78)	54	(80)	229	(77)	177	(73)
Ill	1	(1)	0	(0)	4	(3)	4	(4)	3	(4)	1	(2)	8	(3)	5	(2)
Exp	0	(0)	0	(0)	1	(1)	5	(5)	4	(4)	0	(0)	5	(2)	5	(2)
Un	14	(14)	7	(12)	6	(6)	1	(1)	9	(9)	5	(6)	29	(10)	13	(6)
Tot	99	(100)	71	(100)	107	(100)	103	(100)	97	(100)	69	(100)	303	(100)	243	(100)

Int=Lack of interest in school Fees=Lack of school fees Preg=Pregnancy Ill=Illness
Exp=Expulsion Un=Unknown.
Percentages may not sum to 100 because of rounding off.

Table 15: Causes of Dropout Among Boys in Cohorts 1 and 2 in the Junior Secondary School

Cause	FORM 1				FORM 2				FORM 3				TOTAL			
	Coh. 1		Coh. 2		Coh. 1		Coh. 2		Coh. 1		Coh. 2		Coh. 1		Coh. 2	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Work	1	(3)	1	(4)	4	(13)	4	(12)	1	(3)	0	(0)	6	(6)	5	(7)
Int	8	(24)	8	(26)	7	(14)	12	(33)	7	(23)	9	(67)	22	(21)	29	(37)
Fees	12	(35)	13	(52)	9	(31)	8	(21)	4	(13)	2	(17)	25	(26)	23	(31)
Sed	1	(3)	0	(0)	5	(14)	2	(6)	3	(10)	1	(8)	9	(9)	3	(4)
Ill	0	(0)	0	(0)	0	(0)	4	(12)	7	(23)	0	(0)	7	(7)	4	(6)
Exp	1	(3)	3	(13)	6	(21)	5	(15)	6	(20)	0	(0)	13	(15)	8	(11)
Un	11	(31)	1	(4)	3	(7)	1	(3)	3	(10)	1	(8)	17	(16)	3	(4)
Tot	34	(100)	26	(100)	34	(100)	36	(100)	31	(100)	13	(100)	99	(100)	75	(100)

Work=Wanted to work Int=Lack of interest in school Fees=Lack of school fees Sed=Seduction
Ill=Illness Exp=Expulsion Un=Unknown.
Percentages may not sum to 100 because of rounding off.

were thus far less signficant in causing dropout than pregnancy.

In both cohorts, the number of girls who fell pregnant was fairly similar in Form 1 and Form 3, but increased during Form 2. However, as dropout resulting from other factors also tended to increase during Form 2, the proportion of dropout due to pregnancy remained fairly stable over the three forms.

Among boys, the picture was very different. Although more than 400 girls from the two groups left or were expelled from school because they were pregnant, only 12 boys were expelled for 'seduction'(making a girl pregnant). Whether this is because most girls become pregnant by outsiders, or because schools do not properly enforce the rule that both the boy and the girl involved in a case of pregnancy should be expelled, cannot be ascertained from this data. Nevertheless, the fact that expulsion for 'seduction' accounts for only five per cent of dropout among boys, compared with 75 per cent for pregnancy among girls, does lead one to suspect that cases of seduction are generally being treated more leniently than cases of pregnancy.

The major cause of dropout among boys was a reported 'lack of interest in school'. This accounted for around 20 per cent of the dropout from Cohort 1, and around 35 per cent of the dropout from Cohort 2. Some of these boys left to join the army and the police-force, and to work in the mines at Selibi-Phikwe. However, despite the fact that 'lack of interest' was the major cause of dropout among boys, only 2.5 per cent of all the boys in both groups dropped out for this reason. The corresponding figure for girls was less than one per cent.

The second-most important reason for dropout among boys was an inability to pay fees. Around 30 per cent of the boys who dropped out from both cohorts did so because of this. The most critical period was Form 1, followed by Form 2 and then Form 3. Nevertheless, the overall proportion of boys who left school for financial reasons was only 2 per cent. Among girls it was 1.5 per cent.

The other main cause of dropout among boys was expulsion due to bad behaviour (usually drinking or being out-of-bounds). This accounted for 12-14 per cent of male dropout, although only 21 boys were actually affected. This is due to the generally low level of dropout among boys. Eleven boys also dropped out because of illness.

4.2 Causes of Dropout During the Senior Cycle

As was shown earlier, rates of dropout at the senior level are lower than at the junior level, especially among the boys. Generally speaking, however, the causes of dropout follow similar

Table 16. Causes of Dropout Among Girls in Cohorts 1 and 2 in the Senior Secondary School

Cause	FORM 4		FORM 5		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Int	0 (0)	2 (4)	0 (0)	1 (3)	0 (0)	3 (4)
Fees	5 (12)	4 (8)	0 (0)	0 (0)	5 (8)	4 (5)
Preg	35 (83)	42 (86)	21 (84)	33 (94)	56 (84)	75 (89)
Ill	1 (2)	0 (0)	0 (0)	1 (3)	1 (2)	1 (1)
Exp	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	1 (1)
Rpt	0 (0)	0 (0)	0 (0)	1 (4)	1 (2)	0 (0)
Un	0 (0)	0 (0)	0 (0)	3 (12)	3 (5)	0 (0)
Tot	42(100))	49(100)	21(100)	39(100)	67(100)	84(100)

Int=Lack of interest in school Fees=Lack of school fees Preg=Pregnancy
Sed=Seduction Ill=Illness Exp=Expulsion Rpt=Repeating Un=Unknown.
Percentages may not sum to 100 because of rounding off.

Table 17: Causes of Dropout Among Boys in Cohorts 1 and 2 in the Senior Secondary School

Cause	FORM 4		FORM 5		TOTAL	
	Coh. 1	Coh. 2	Coh. 1	Coh. 2	Coh. 1	Coh. 2
Work	1 (5)	2 (9)	0 (0)	0 (0)	1 (1)	2 (2)
Int	6 (29)	5 (22)	0 (0)	0 (0)	6 (9)	5 (6)
Fees	7 (33)	2 (9)	0 (0)	0 (0)	7 (10)	2 (2)
Sed	1 (5)	2 (9)	0 (0)	1 (8)	2 (3)	3 (4)
Ill	1 (5)	3 (13)	0 (0)	2 (17)	1 (1)	5 (6)
Exp	3 (14)	6 (26)	2 (95)	7 (58)	5 (7)	13 (15)
Rpt	1 (4)	0 (0)	1 (2)	0 (0)	2 (3)	0 (0)
Un	1 (5)	3 (13)	0 (0)	2 (17)	1 (1)	5 (6)
Tot	42(100)	49(100)	21(100)	39(100)	67(100)	84(100)

Work=Wanted to work Int=Lack of interest in school Fees=Lack of school fees
Sed=Seduction Ill=Illness Exp=Expulsion Rpt=Repeating Un=Unknown.
Percentages may not sum to 100 because of rounding off.

trends at both levels (see Tables 16 and 17). Among girls, pregnancy again stands out as the supremely important factor causing girls to leave. In all, 56 girls from Cohort 1 and 75 from Cohort 2 left school because of pregnancy, thus accounting for around 85 per cent of the total female dropout. This means that more than 10 per cent of the girls who began the senior cycle left before sitting for their Cambridge Examination because they were pregnant.

Five girls from Cohort 1 and four from Cohort 2 also left because of their failure to pay fees. In comparison with pregnancy, however, all other factors were insignificant.

The pattern of dropout among boys at the senior level was more erratic across the two cohorts. From Cohort 1, six boys left because of a lack of interest in school, seven left because of their failure to pay fees, and five were expelled because of bad behaviour. Only one boy was expelled for seduction. In Cohort 2, expulsion was the major cause of dropout (or 'push-out'), followed by lack of interest in school. Only two boys left because they had difficulties in paying school fees. Three boys were expelled for 'seduction'. Hence, only five of the original male Form 4 entrants were expelled during the course of the senior cycle for causing a girl to become pregnant, while more than 10 per cent of the girls (131) were expelled for being pregnant.

The major reported reasons for dropout in the two cohorts studied were thus found to be very different for girls and boys. Pregnancy accounted to 75 per cent of all female dropout at the junior secondary level, and 85 per cent of dropout at the senior level. The most important reasons for dropout among boys were a reported lack of interest in school and the inability to pay school fees. At the junior level, these factors accounted for around 50 per cent of all male dropout. At the senior level, expulsion for bad behaviour also contributed significantly to dropout among boys.

CHAPTER 5

THE IMPLICATIONS OF THE FINDINGS

The dropout rates calculated from the 1979-83 and the 1981-85 cohorts reveal a rather high rate of dropout in Botswana´s secondary schools, particularly at the junior secondary level.

High rates of dropout have considerable financial implications. In systems with a high incidence of repetition and dropout, the cost per completer of each cycle is higher than need be, as students take longer to complete than the set number of years.

In the case of Botswana, less than 90 per cent of the students completed the junior cycle, while the senior cycle was completed by 93 per cent of the students who entered it. In Zambia, by contrast, more than 95 per cent of students complete both cycles. The cost consequences of this failure to complete can be illustrated by considering the average number of years taken by students to complete a particular cycle. In Botswana, the average number of student years taken by the two cohorts analysed in this study to complete the junior cycle in government schools were 3.3 and 3.2 repectively. This means that approximately one extra term is being spent by each student, on average, to graduate from junior secondary school. If community schools were also included, the average number of years taken to complete the junior cycle would be even higher. At the senior level, the average number of years taken by both cohorts was 2.1.

The dropout rates for girls were approximately three times those for boys. Consequently, the average number of student years taken by girls to complete each cycle was higher for girls than for boys. The girls in both cohorts took an average of 3.4 years to complete the junior cycle, compared with around 3.1 years for the boys.

Clearly, in Botswana dropout is not only an efficiency but also an equality issue. Dropout rates among girls in secondary schools are unacceptably high, and this has serious educational, social and economic consequences.

The outstanding cause of dropout among girls was pregnancy, accounting for 75 per cent of all female dropout at the junior level, and 85 per cent at the senior level. In other words, almost 15 per cent of all female entrants to the junior cycle left school pregnant before sitting their Junior Certificate Examination, and a further 10 per cent of the female entrants to the senior cycle became pregnant before taking their Cambridge Examination.

The two main reasons given to account for dropout among boys were a reported lack of interest in school, and the inability to pay school fees. The first of these accounted for 30-40 per cent of the total male dropout, while the second accounted for about 30 per cent. However, as the rate of dropout among boys was so much lower than among girls, only 4-5 per cent of all male Form 1 entrants in the sample actually left school for these reasons. Many of the boys who did so were subsequently accepted into the army or the police force. Expulsion for 'seduction' accounted for only 5 per cent of male dropout.

There are, then, major differences in the reasons for girls and boys dropping out of school. As we have seen, the vast majority of girls who leave school are forced to do so because they are pregnant. On the other hand, it appears that many boys actually make the decision to leave voluntarily, either because they are not interested in school, or because they wish to begin working. Does this indicate that girls are more interested in school than boys are, and have higher dropout rates only because they are unfortunate enough to become pregnant? If the incidence of schoolgirl pregnancy could be lowered, would the dropout rates for girls then be lower than those of boys?

From the comments of some of the teachers interviewed during the study, it appears that this would perhaps not be the case. While almost all teachers and principals agreed that pregnancy affects a cross-section of the school population, it was also felt that some girls almost deliberately become pregnant in order to be able to leave school. Hence, a proportion of those girls who fall pregnant may in fact correspond to the group of boys who left because they were not interested. In other words, if they did not become pregnant, it is likely they would leave school anyway.

A similar argument may be advanced in relation to school fees. A higher proportion of boys than girls left school because they were unable to pay their school fees. Why should this be the case? Are parents more willing to pay the school fees of their daughters than their sons? Given that the majority of pupils at the junior secondary level are actually girls, there would seem to be some truth in this. Nevertheless, it is also likely that part of the explanation may lie in the fact that those girls who are aware that there may not be money for next year's school fees lose their motivation and ultimately end up falling pregnant.

Despite these arguments, however, it is clear that there is an urgent need to reduce the rate of pregnancy among schoolgirls. As we have seen, unwanted pregnancies result in the interuption, and generally termination, of the education of many young girls each year. Many of these girls, according to the teachers and principals interviewed, were among the brightest girls in their classes. One girl who had been forced to leave was the head-girl, while another had recently been a prize-winner in the national mathematics competition. Hence, unlike in Western countries, where school dropout is strongly associated with low academic performance and poor social adjustment, this does not appear to be the case in Botswana. Among girls, at least, enforced dropout due to pregnancy affects students regardless of their interest in school, their level of academic success, and their social background. For the vast majority of girls, the onset of pregnancy represents a personal tragedy.

Not only does pregnancy entail a loss of educational opportunity to the girls involved, it also involves serious financial losses to the parents or guardians, who must pay rather high school fees each year. Because of their low level of education, it is also likely that such girls will continue to be an economic burden to their parents and the state, as they will find it difficult to obtain any employment. Early pregnancies may also have serious effects upon the health and emotional well-being of both mother and child. The maternal death risk is higher among teenagers than older women, and babies are also more likely to be born prematurely, to be under-nourished, and to suffer from neglect because some teenagers lack the skills necessary to raise a child. Many girls also undergo severe emotional distress reulting from their shame at disappointing those who have been paying for their education, and their realisation that they will probably never return to school. Finally, there is the real risk of permanent physical damage to the mother if, as sometimes happens, she attempts an illegal abortion.

The question of what should be done to alleviate the problem of teenage pregnancy is currently under discussion. In 1977, the National Commission on Education recommended that family life education be introduced into secondary schools. So far, however, the government has refrained from doing this because it feels that some sections of the community are against the idea. Nevertheless, an optional programme of family life education has now been included in the upper primary school science syllabus. Because of the fear of parental opposition, however, the subject has been made non-examinable, and it appears that very few teachers are actually teaching it at present. The crucial issue appears to be whether a significant proportion of parents and the community really do oppose the introduction of family life education. Until this can be determined, it seems unlikely that the government will be willing to introduce it on a compulsory basis. This position, coupled with the apparent unwillingness of many clinics to issue schoolgirls with contraceptive devices, will do little to reduce the current high pregnancy rates.

An alternative measure which could also reduce dropout rates among girls would be to make it easier for those who do become pregnant to complete their education. This could be done either by relaxing the rules governing automatic expulsion, or by more actively encouraging girls to return to school after giving birth. Although I found several cases of girls who had returned to school to complete their Junior Certificate Examinations, many never do so. Most of the girls I interviewed had been forced to enter community schools or night schools, as it was difficult for them to gain entrance to a government school. Given the low pass rates in both these types of schools, their chances of succeeding in their examinations were not great, even if they had previously done well in school. It is a pity that many talented girls are forced to suffer the consequences for what is, after all, a community issue.

CHAPTER 6

DROPOUT AMONG GIRLS: A FINAL NOTE

This paper has examined the extent and causes of dropout among girls and boys at the junior secondary and senior secondary levels. It has been shown that 16-18 per cent of all the girls in the sample who began Form 1 had dropped out before taking their Junior Certificate Examination, compared with 6-7 per cent of the boys. At the senior level, 13 per cent of all female Form 4 entrants dropped out before Cambridge, compared with 3 per cent of the boys.

High as these rates are, we should bear in mind that the major share of dropout at the secondary level actually takes place between the junior and senior cycles. This becomes clear if we follow particular cohorts through all stages of the secondary school. The progress of the two cohorts examined in this study is presented in Table 18, and is illustrated in Figure 5. The figures are based on the national enrolment statistics and completion rates presented in Section 3.1.

As Table 18 shows, less than 35 per cent of the girls from Cohort 1 who entered Form 1 in 1979 managed to complete Form 5 and sit the Cambridge Examination, compared with almost 55 per cent of the boys. In Cohort 2, only about 40 per cent of the girls gained entrance to Form 4 compared with more than 65 per cent of the boys. What accounts for this large difference?

We have already seen that the dropout rates for girls are larger than for boys during both the junior and senior cycles. However, as Figure 5 shows, the major share of dropout for both sexes occurs between Form 3 and Form 4. Fifty per cent of the girls in Cohort 1 and 40 per cent of the girls in Cohort 2 were 'pushed out' at the point. The same fate befell around forty per cent of the boys in Cohort 1 and almost 30 per cent of the boys in Cohort 2. The higher dropout rate amongst the girls meant that only 35 per cent of the girls in Cohort 1 and 40 per cent of the girls in Cohort 2 were able to enter the senior cycle. Among boys, on the other hand, 55 per cent of Cohort 1 and 65 per cent of Cohort 2 entered the senior school. Thus, while there are clearly serious differences between the dropout rates of girls and boys during both the junior and senior cycles, as this paper has already shown, there are also large differences between the numbers of girls and boys leaving school between these cycles. What is causing this?

To gain admission to senior secondary school, a student must be successful in the annual selection procedure carried out by

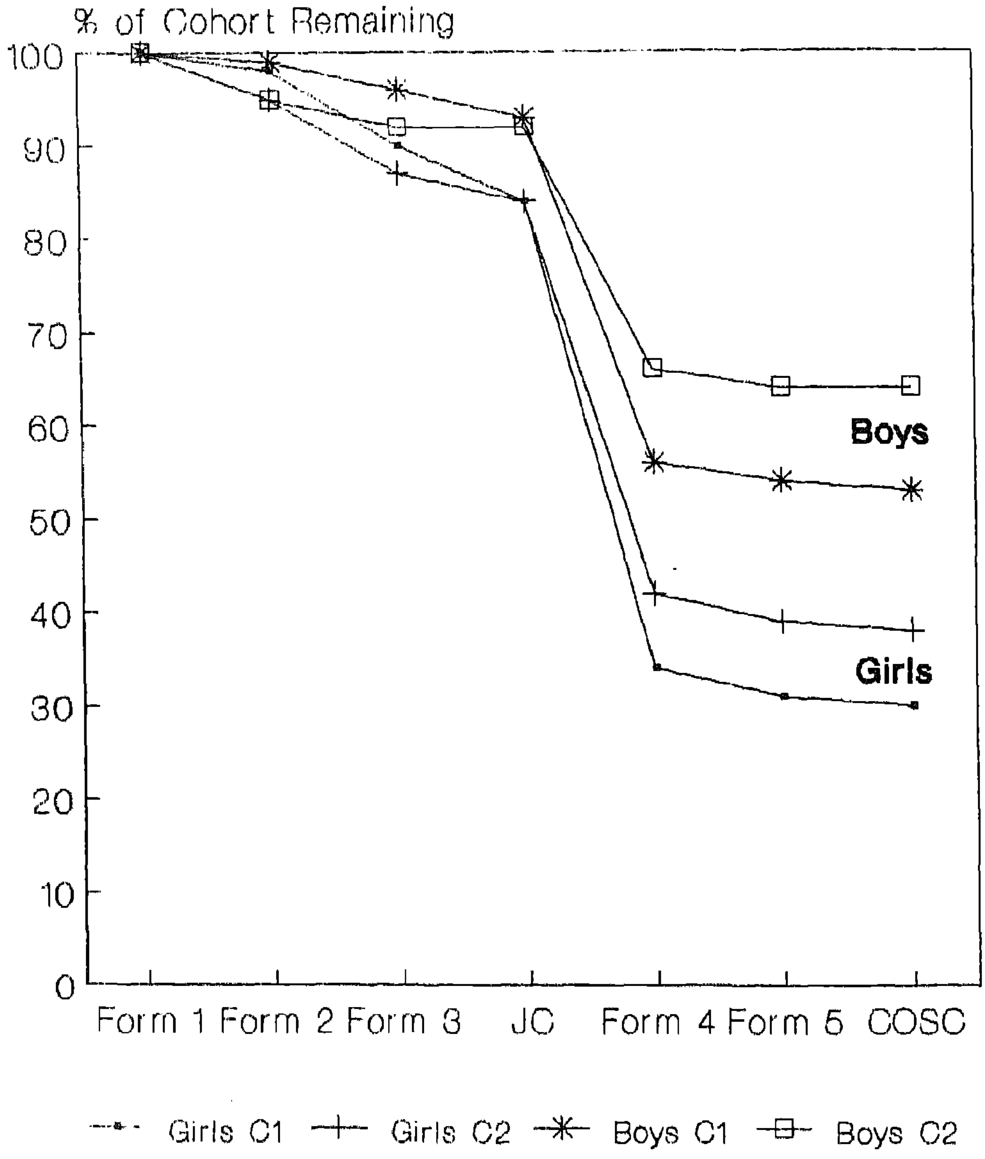
Table 18: The Progression of Cohorts 1 and 2 Through Government Secondary Schools, Expressed as a Percentage of the Cohort Remaining

	Girls		Boys	
	Coh 1	Coh 2	Coh 1	Coh 2
Form 1	100.0	100.0	100.0	100.0
Form 2	98.4	94.9	99.6	94.8
Form 3	90.1	87.1	96.4	92.2
JC Exam	84.3	83.5	93.3	92.5
Form 4	33.9	42.3	55.5	66.1
Form 5	31.0	38.6	54.0	63.6
COSC Exam	30.0	37.5	53.4	63.7
DO Junior Cycle (%)	15.7	16.5	6.7	7.5
DO Between Cycles (%)	59.7	49.4	40.5	28.5
DO Senior Cycle (%)	11.6	11.3	3.8	3.6
Tot DO Rate (%)	70.0	51.2	46.6	36.3

Based on National Enrolment Statistics and Completion Rates

Sources: Education Statistics, 1979-1983; Junior Certificate Results, 1981 and 1983; COSC Results, 1983 and 1985

FIGURE 5



The Progress of Female and Male Cohorts Through Government Schools

Based on Table 18

principals and the Ministry of Education. So, the high female dropout rates occurring after Form 3 could be due either to the fact that fewer girls than boys are selected to the senior cycle, or that fewer girls than boys actually take up the places offered (or a combination of both). Which is it?

The answer to this question may be gained from the national Form 4 selection lists, which contain the names of all students selected for Form 4 in the country. Selection is carried out jointly by principals and the Ministry of Education. The number of girls and boys selected for the senior level in 1984 is presented in Table 19.

Table 19: Girls and Boys Selected for Admission into Senior Secondary School, 1984

Students	No. Selected
Girls	924
Boys	1207
TOTAL	2134
% Girls	43

Source: Form 4 Selection Lists, Ministry of Education, 1984.

As can be seen, only 43 per cent of those selected for Form 4 were girls, thus lending support to the first explanation: the high female dropout rate after the Junior Certificate Examination is due to the fact that girls are less successful than boys in the competition for Form 4 places, rather than that they fail to take up those places offered. Of the 2075 boys who completed Form 3 in 1983, almost 60 per cent (1207) were offered Form 4 places, while only 40 per cent (924) of the 2218 girls received offers.

In other words, there is a 40 per cent 'pushout' rate among boys, and a 60 per cent rate among girls. At issue here are not the high rates, which are due to the lack of senior places, but the disparity between the male and female dropout rates. Why are the girls less successful in being selected into the senior cycle?

The reason becomes clear when we consider the basis upon which selection takes place - Junior Certificate examination results. The Junior Certificate Examination takes place at the end of the junior school, and its results strictly determine selection into the senior level.

The Junior Certificate results for 1983, on which the 1984 selection was based, are presented in Table 20. It is immediately apparent that the girls did not perform as well as the boys: only 12 per cent of the 'merit' class passes (the highest pass) were obtained by girls, as well as only 25 per cent of the first class passes. By contrast, a disturbing 60 per cent of third class passes and 70 per cent of the fourth class grades went to girls. Less than 25 per cent of third class passes are admitted to Form 4, while a fourth class is not generally regarded as a pass at all.

Table 20: Junior Certificate Examination Results for Girls and Boys by Category of Pass, 1983

Grade	Girls	Boys	Total	% Girls
Merit	1	7	8	12.5
First Class	19	55	74	25.7
Second Class	507	824	1331	38.1
Third Class	1691	1196	2887	58.6
Fourth Class	580	232	812	71.4
TOTAL	2798	2314	5112	54.7

Source: Duncan (1985)

Here, then, lies the major explanation for the high loss rate for girls between junior and senior secondary school: their poor performance. In comparison with the boys, the Junior Certificate results for girls in both government and community schools are very poor indeed. So, while pregnancy does, as we have seen, cause considerable numbers of girls to drop out of school, to achieve equality between the number of girls and boys at the senior levels of the secondary school it will be necessary to introduce measures designed specifically to improve the performance of girls, or changing the present selection procedures to discriminate positively in favour of girls. Merely expanding overall intake is not enough. The substantial increase in the proportion of students entering senior secondary school which occurred between 1983 and 1985, for example, did not increase the proportion of girls in senior secondary school at all. The proportion of girls in the first year of the senior cycle remained unchanged at 43 per cent. Although the problem of schoolgirl pregnancy is a serious one, an equally serious obstacle hampering the educational advancement of girls at present relates to gender disparities in achievement. Until officials and teachers become conscious of, and try to counteract, the many school processes which act to lower the educational performance of girls, it will be difficult for them to improve their position.

REFERENCES

Allison, Christine, "The Determinants of Participation in Primary Schools in Kweneng with special reference to cattle and mine labour migration". National Migration Study, November 1978.

Case, John, "The Effects of Migration on Primary Education" in Migration in Botswana. Patterns, Causes and Consequences, Vol. 2 (Gaborone: Central Statistics Office, 1982).

Chernichovsky, Dov and Christine Smith, Primary School Enrollment and Attendance in Rural Botswana. Population and Human Resources Division, World Bank. 1979.

Deblé, Isabelle, The School Education of Girls. An International Comparative Study on School Wastage Among Girls and Boys at the First and Second Levels of Education Paris: UNESCO. 1980.

Duncan, Wendy, Schooling for Girls in Botswana. Education or Domestication? Working Paper No. 49, National Institute of Research, Gaborone. 1985.

Improving the Efficiency of Educational Systems, Botswana Education and Human Resources Sector Assessment. Florida State University. 1984.

Ministry of Education, Education Statistics. Central Statistics Office. Gaborone. 1972-1984.

Ministry of Education, Form 4 Selection Lists, 1984.

Ministry of Home Affairs, "Report on the International Women's Day Symposium", Gaborone: Women's Affairs Unit. 1985.

Pallas, Aaron, School Dropouts in the United States. Center for Education Statistics, U.S. Department of Education, 1987.

Rumberger, Russell, "High School Dropouts: A Review of Issues and Evidence", Review of Educational Research, 57(2), 1987, 101-121.

UNESCO, Analysing and Projecting School Enrolment in Developing Countries: A Manual of Methodology. Paris. 1980.

UNESCO, Statistics of Education in Developing Countries. An Introduction to their Collection and Presentation. Paris. 1968.

REPORTS from the Institute of International Education, University of Stockholm

No. 1 Husén, Torsten
"Multi-National Evaluation of School Systems. Purposes and Methodology".
March 1973.

No. 2 Brucefors, Agneta, Emanuelsson, Ingemar & Johansson, Per-Olof
"Skolan som jämlikhetsinstrument. Några funderingar och förslag till forskning".
March 1973.

No. 3 Bergsten, Urban, Borgström, Lena, Lindgren, Gunilla & Sjörberg, Gun
"Återkommande utbildning. Bakgrund och utveckling".
June 1973.

No. 4 Mählck, Lars
"Från gymnasium till högra utbildning. Några analyser av olika bakgrundsfaktorers samband med valet att gå vidare till universitet och högskolor".
March 1974.

No. 5 Bulcock, Jeffrey W.
"Achievement in Mother Tongue Literature. Some Strategies in Causal Analysis".
April 1974.

No. 6 Bulcock, Jeffrey W., Fägerlind, Ingemar & Emanuelsson, Ingemar
"Education and the Socioeconomic Career. U.S. - Swedish Comparisons".
May 1974.

No. 7 Finn, Jeremy D. and Mattsson, Ingrid
"Multivariate Analysis in Educational Research. Some Applications".
June 1974.

No. 8 Husén, Torsten
"International Evaluation in Educational Systems. Its Role of Building Research Competence in Developing Countries".
October 1974.

No. 9 Husén, Torsten
"Reshaping the Upper Secondary School Curriculum".
November 1974.

No. 10 Bulcock, Jeffrey W., Fägerlind, Ingemar and Emanuelsson, Ingemar
"Education and the Socioeconomic Career II. A Model of the Resource Conversion Properties of Family, School and Occupational Environments".
March 1975.

No. 11 Bergling, Barbro
"Föräldraintressets betydelse för utbildningens längd.
Några multivariata analyser samt jämförelser USA - Sverige".
March 1975.

No. 12 Kifer, Edward W., Mattsson, Ingrid and Carlid, Mats
"Item Analysis Using the Rasch Model. An Application on
IEA Data".
June 1975.

No. 13 Bergling, Barbro
"Pathanalys - en kausal modell. Introduktion till en multivariat forskningsmetod".
September 1975.

No. 14 Mählck, Lars and Mattsson, Ingrid
"Rekrytering till högre utbildning bland gymnasister med
lika valmöjligheter - Modellutveckling och några empiriska
resultat".
November 1975.

No. 15 Husén, Torsten
"Policy Implications of the IEA Findings and Some of Their
Repercussions on National Debates on Educational Policy".
December 1975.

No. 16 Mählck, Lars
"Om rekrytering till högre naturvetenskapliga och tekniska
studier: Kunskapsnivå och attityder hos elever från Na- och
Te-linjen".
December 1975.

No. 17 Engholm, Mette, Modin, Gunvor & Mählck, Lars
"Yrkesplaner och utbildningsval bland gymnasister: En studie
i könsdifferenser".
December 1975.

No. 18 Husén, Torsten
"The Teenager and the School in Europe".
December 1975.

No. 19 Noonan, Richard & Wold, Herman
"NIPALS Path Modelling with Latent Variables - Analysing
School Survey Data Using Nonlinear Iterative Partial Least
Squares".
February 1976.

No. 20 Nyström, Astrid
"Manual for Selection, Production and Evaluation of Textbooks".
November 1976.

No. 21 Bulcock, Jeffrey W. & Beebe, Mona J.
"Reading in the Structure of Scholastic Performance".
November 1976.

No. 22 Bergling, Kurt
"Mätandet av det logiska tänkandet hos elever i Sverige, England,
Tyskland och U.S.A.".
December 1976.

No. 23 Anderson, Jonathan
"Comprehension Skills Sampled in the IEA Reading Surveys".
April 1977.

No. 24 Fägerlind, Ingemar & Saha, Lawrence
"Education and Development. An Evaluation of an Interdisciplinary Program at the Doctoral Level".
May 1977.

No. 25 Bulcock, Jeffrey W., Clifton, Rodney & Beebe, Mona J.
"A Language Resouce Model of Science Achievement. Comparisons between 14 year-olds in England and India".
May 1977.

No. 26 Anderson, Jonathan & Kann, Ulla
"The Measurement of Reading Comprehension. A Follow-up of the National Education Survey in Botswana".
November 1977.

No. 27 Löfstedt, Jan-Ingvar
"Socialistisk utbildning i Albanien".
December 1977.

No. 28 Obanya, P.A.I.
"Educational Resources in Some Developed and Developing Countries".
December 1977.

No. 29 Beebe, Mona J. & Fägerlind, Ingemar
"The Effects of Instruction in the Native versus a Foreign Language".
March 1978.

No. 30 Asp, Eva & Prestegaard, Marit
"Kvinnor, arbete och inkomster".
September 1978.

No. 31 Little, Angela
"Occupational and Educational Expectations. A Study of Students in Developed and Developing Countries".
October 1978.

No. 32 Little, Angela
"Examination Orientation and Types of Achievement".
December 1978.

No. 33 Corham, A.B.
"Educational Development in a Pastoral Area".
February 1979.

No. 34 Marklund, Sixten
"Skolöverstyrelsen. Historik och nuläge".
April 1979.

No. 35 Prestegaard, Marit, Fägerlind, Ingemar, Lennestedt, Kenneth and Hartman, Ros Mari
"The Malmö Longitudinal Study".
August 1979.

18.7.89

No. 36 Daun, Holger
"Fiskeskolan i Kelibia. En utvärdering av ett SIDA-projekt i Tunisien".
August 1979.

No. 37 Marklund, Sixten & Bergendal, Gunnar
"Några huvudlinjer i det svenska utbildningsväsendets utveckling efter andra världskriget".
August 1979.

No. 38 Noonan, Richard and Wold, Herman
"PLS Path Modelling with Latest Variables: Analysing School Survey Data Using Partial Least Squares - Part II".
August 1979.

No. 39 Chinapah, Vinayagum and Fägerlind, Ingemar
"The Role of Education in the Basic Human Needs Strategy".
August 1979.

No. 40 Gorham, A.B.
"Education and Development in Kenya Maasailand 1920-60".
August 1979.

No. 41 Gorham, A.B.
"Inter-Ethnic Achievement in Reading Comprehension in Kenya Maasailand".
September 1979.

No. 42 Mbamba, Mauno
"The Namibia Education and Health Centres: A Study of SWAPO Schools Among Namibian Refugees in Zambia and Angola
November 1979.

No. 43 Löfstedt, Jan-Ingvar
"Enrollment Developments in China Over Thirty Years in Relation to Industrial Development and in Comparison with the Soviet Union and Taiwan".
February 1980.

No. 44 Marklund, Sixten
"Internationalization of Education. Some Concepts and Questions".
February 1980.

No. 45 Kann, Ulla and Lecoge, Kelebogile
"The 1976 National Education Survey in Botswana: A Guide to Users".
May 1980

No. 46 Kann, Ulla
"Swedish Training Policy for Third World Students: An Historical Overview".
May 1980.

No. 47 Marklund, Sixten
"From Assessments of Individual Students to Evaluation of School Systems".
June 1980.

No. 48 Daun, Holger
Contradiction and Correspondence in Education
Cases from Senegal and Guinea-Bissau
December 1980

No. 49 Husén, Torsten
Present Trends in Education and their Main Determinants
April 1981

No. 50 Fägerlind, Ingemar
Utvärdering av finskspråkig gymnasial utbildning
August 1981

No. 51 Lind, Agneta
Literacy Campaigns and Nation-Building in Mozambique.
First Literacy Campaign Including a Case-Study of one
Literacy Center
August 1981

No. 52 Fägerlind, Ingemar & Munck, Ingrid
Attitudes Towards School and Education in Seven Countries.
Comparisons between England, Finland, Hungary, India, Japan,
Sweden and the USA based on IEA data
September 1981

No. 53 Chinapah, Vinayagum & Daun, Holger
Swedish Missions and Education in the Republic of Zaire:
A Description and Diagnosis
November 1981

No. 54 Chinapah, Vinayagum & Daun, Holger
Educational Evaluation of the Swedish Sister Churches
in the Republic of Zaire
December 1981

No. 55 Fägerlind, Ingemar & Leal, Leonor Cunha
Mathematics in Portugal: The Influence of School and Family
Environment on Results in Grades 7, 8 and 9.
January 1982

No. 56 Löfstedt, Jan-Ingvar
Bredare samarbete mellan Sverige och u-länder i form av
person- och erfarenhetsutbyte. En kortfattad utvärdering
av försöksperioden
February 1982

No. 57 Duncan, Wendy & Löfstedt, Jan-Ingvar
School Building, Teacher Training and Village Development in
Bangladesh. An Evaluation of Three Swedish Non-Government
Programmes
March 1982

No. 58 Löfstedt, Jan-Ingvar
Science Requirements in the People's Republic of China
May 1982

No. 59 Fägerlind, Ingemar
"Försöksverksamhet med finskspråkig gymnasial utbildning. Erfarenheter och uppföljning 1977-1982".
September 1982

No. 60 De Bresser, John & Fägerlind, Ingemar
Segmentation in Career Development.
A Description of Paths to and between Occupations.
October 1982

No. 61 Gumo, Charles & Kann, Ulla
A Review of the Development of the Kenya Science Teachers College.
October 1982

No. 62 Strömqvist, Görel, Goldman, Madeleine & Gutebring, Maria
Kvinnors arbetsmarknad i Sverige 1970-1980.
En översikt av näringsgrenar och yrkesområden.
February 1983

No. 63 Daun, Holger
Primary Learning Systems in Sub-Saharan Africa.
Indigenous, Islamic and Western Education.
May 1983

No. 64 Marklund, Sixten
The IEA Project: An Unfinished Audit
October 1983

No. 65 Marklund, Sixten
Blockämnen och blockämnesundervisning på grundskolans högstadium.
December 1983

No. 66 Marklund, Sixten
Årskurslös skola och undervisning.
Några erfarenheter av alternativa arrangemang.
February 1984

No. 67 Mbamba, A. Mauno & Chinapah, Vinayagum
Training in Educational Planning.
Report on a Course in Livingstone, Zambia, January 1985.
March 1985

No. 68 De Bresser, John
Technical and Vocational Teachers College.Luanshya, Zambia
A Tracer Study of TVTC Graduates.
April 1985

No. 69 Daun, Holger
Primary Learning Systems in Sub-Saharan Africa
Cases from Senegal
August 1985

No. 70 Sirén, Ulla
Språkmiljöer
En pilotstudie av barn till finskspråkiga mödrar
August 1985

No. 71 Gustafsson, Ingemar and McNab, Christine
Swedish Mission Education in Colonial Africa -
A Model for Rural Development?
September 1985

No. 72 Johnston, Anton and McNab, Christine
Nordic Research on Education in
Developing Countries 1975-1985
A Selected Bibliographic Review of
Research and Dissemination
December 1985

No. 73 Lind, Agneta
Adult Literacy in the Third World -
A Literature Review
December 1985

No. 74 Noonan, Richard & Jan-Åke Engström
Kunskaper i naturorienterande ämnen i svenska skolor:
Resultat från den andra IEA-undersökningen om
naturorienterande ämnen
October 1986

No. 75 Noonan, Richard & Jan-Åke Engström
Science Achievement in Swedish Schools:
Results from the IEA Second International Science Study
November 1986

No. 76 Makrakis, Vasilios
Computers in Education: Towards a New Pedagogy?
January 1987

No. 77 McNab, Christine
Language Planning for Education in Ethiopia: Policy
Development and Implementation Processes
October 1987

No. 78 Fägerlind, Ingemar
Data Collection in the Malmö Longitudinal Study
October 1987

No. 79 Eriksson, Riitta and Fägerlind, Ingemar
Erfarenheter av undervisning i svenska som andraspråk -
Utvärdering av försöksverksamhet med finskspråkiga
linjer i gymnasieskolan i Stockholm
October 1987

No. 80 Tuijnman, Albert
Monitoring Adult Education -
With Special Reference to Sweden
November 1987

No. 81 Wendy Duncan
School Dropout in Botswana
Gender Differences at Secondary Level
February 1988